

Translation of Resolution No. 2446 of August 26, 2010, from paragraph II, p. 2 through p. 21

[Stamp on The Comptroller General of the State  
Division of Liability on the right side on each page]

II. That for this reason, on May 29, 2009, joint and several Notices of Administrative Penalty 5882, 5886 to 5863 were issued against the Norberto Odebrecht-Alstom-Va Tech Consortium officer and former officers of the Company Hidropastaza S.A., having legally notified them in the form and on the dates set forth below, informing them of the basis of the observation and giving them a period of sixty days in accordance with Article 53, paragraph 1 of the Organic Law of the Comptroller General of the State, in order for them to answer and present the pertinent evidence in their defense:

Notice No. and Names	Notification	Dates
5882 <b>Norberto Odebrecht – Alstom - Va Tech Consortium</b>	Published on the "HOY" Newspaper	07-16-2009
5886 <b>Edgar Rodrigo Castro Hitchcock</b>	In person	06-09-2009
5887 <b>Descartes Higinio León Pérez</b>	In Person	06-04-2009

DEFENSE TRIAL  
EXHIBIT

**18**

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5888	<b>Néstor Valdospino Cisneros</b>	In person	06-04-2009
5889	<b>Pablo Mauricio Cisneros</b>	In person	06-04-2009
	<b>Gárate</b>		06-05-2009
5890	<b>Pablo Anibal Viteri Estévez</b>	Published on the "HOY" Newspaper	
5891	<b>Sadinoel de Freitas Junior</b>	In person	07-16-2009
5892	<b>Bolivar Javier Astudillo</b>	In person	06-09-2009
	<b>Farah</b>		
5893	<b>Germán Bolívar Anda</b>	In person	06-15-2009
	<b>Naranjo</b>		

III. That within the legal term, the people indicated above answered to the Notice of Administrative Penalty by means of communications sent to the Office of the Comptroller General of the State, according to the following details:

		Date	Letter number
a)	5882		
	<b>Norberto Odebrecht – Alstom -</b>	09/21/2009	058091
	<b>Va Tech Consortium</b>		
		07/21/2009	026280
		09/18/2009	058091
		09/18/2009	N/A
		08/05/2010	69453

Having learned of the civil liability, the legal representative of Norberto Odebrecht-Alstom Va Tech Consortium, in his communication on pages 11281 to 11299, presents a detailed analysis tending to demonstrate that CONELEC and Hidropastaza S.A. were the ones who approved the increase in speed of the turbines. In addition to this main argument, they present other subsidiary exonerating arguments such as:

Geological geotechnical events.

*"The geological-volcanic conditions of the area where the San Francisco Hydroelectric Project is located are well known, as they were described in detail in the studies and reports prepared by INECEL during the pre-feasibility, feasibility, design and pre-contractual stage of the concession, and on which the technical specifications of the agreement were developed....*

*Between November 2003 and June 2008, there were some explosive eruptions, some more serious than others (May-July 2004, May-August 2006, and February 2008).*

*If, as stated by CGE, the geological-volcanic risk of the area and the eventual volume of sediment entrainment were not adequately considered, such considerations should have been made by INECEL in the basic design or in the bidding conditions, which was not the case, since the magnitude of these phenomena is always unpredictable and the mitigation measures that can be adopted in a given site to adapt it to the effects of such events may involve a wide range of options, any of which will have repercussions on the construction of the work and its success both in the construction stage and in the operation stage. In no contractual document was the Construction Consortium required, nor did it commit itself, to reanalyze the sedimentary, geological, or mechanical situation of the project's implementation. Likewise, it was not a reasonable conduct of the Constructor Consortium, since INECEL carried out studies for a significant number of years, and it was not expected of an experienced Constructor under the circumstances (including but not limited to the experience and knowledge of INECEL) to reevaluate this situation after the award of its contract and in parallel with the beginning of the works under its responsibility, therefore, it was not the Constructor Consortium's responsibility to carry out such studies.*

*The assertion that the geological-volcanic risk was not adequately considered cannot in any way be imputed to the Construction Consortium, since this responsibility corresponds to INECEL, who provided the studies and data on the basis of which the construction of the work was carried out, and to CONELEC, in its capacity as Grantor. Similarly, the optimization study developed by the Construction Consortium did not have in its scope, as the CGE assumes, to alter the specifications on the site conditions of the works, or to anticipate an unforeseeable condition of force majeure far beyond the geological-volcanic conditions contemplated by INECEL in its studies and designs".*

#### Measurements during execution

The Construction Consortium submits evidence of the severity and impact of the volcanic and seismic activity of the Tungurahua volcano, according to the emergency decrees issued in 2006, 2007 and 2008, for which it states ".[they].represent a clear example of a force majeure event for which neither the basic design provided by the grantor, nor the optimization thereof could have foreseen a technically or economically viable solution".

#### Sediments in the Rio Pastaza

*According to the information contained in the Bidding Terms and Conditions, in Volume 3. Part 6, General Technical Specifications 2-1, Section 2 - General Conditions for Design, Section 2.2.1 - Water Conditions, the characteristics of the water to be turbined by the San Francisco hydroelectric project were as follows:*

*"a) Rio Pastaza at the exit of Agoyán  
Analysis of 6 and 8/IV/89  
PH 7.8  
Total hardness, Ca CO<sub>3</sub> 130 ppm.  
Alkalinity, Ca CO<sub>3</sub> 160 ppm.  
Bicarbonates, 195 ppm.*

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Chlorides 20 ppm.  
 Sulfates 22 ppm.  
 Conductivity 400  $\mu$ S/cm  
 Total dissolved solids 256 ppm.  
**Suspended Solids** 150 ppm. Langelier  
 index - 0.5  
 Stability index 8.80

*The solid material in suspension in the Rio Pastaza upstream of the reservoir is approximately 6,300,000 t/year, of which 70% is retained in the reservoir and is evacuated during flushing operations.*

***Solids concentrations of 1.7 kg/m<sup>3</sup> = 1,700 ppm have been measured in Agoyan's turbined waters, although they generally do not exceed 0.4 kg/m<sup>3</sup>.***

*The granulometric analysis indicated 30% fine sand with particles of 40 to 150  $\mu$ m, 20% fine clay with particles larger than 140  $\mu$ m and the remaining 50% is silt clay with particles less than 40  $\mu$ m.*

*Mineralogical analysis has determined that the fine sand over 150  $\mu$ m is composed mainly of clay lumps and plants, the sand under 150  $\mu$ m is composed by quartz of 7 Mohs hardness with subhedral form, being silt and clay not undecipherable."*

*This same information is included textually in Exhibit I of Volume 2 of the Second Modification to the Concession Contract, page 22, Paragraph 2.2, Environmental Conditions, which are repeated in Exhibit 4 - Volume 2 of the EPC Contract, approved by Addendum No. 4. (Page 22, Article 2.2.1.).*

*The above-mentioned technical information can be summarized, as far as suspended solids is concerned, in the following table:*

	Suspended solids (mg/l)	Suspended Solids(Kg/m <sup>3</sup> )	Suspended Solids(ppm)	Settleable solids (ml/l)	Settleable solids (ppm)
Measured value	150	0.150	150	0,256	256
Maximum measured value	1700	1.7	1700		
Average value	400	0.4	400		

*Likewise, the information provided in the bidding documents establishes that the total suspended solids in the water to be treated will reach 1,890,000 tons/year, and that the reservoir would hold 4,410,000 tons/year, which would be discharged from the reservoir during the washing operations of the Hidroagoyán.*

*Among the studies carried out by INECEL were solid gauging of different stations in the basin, estimates of the statistical values of the quantity of sediment contributed to the reservoir by dragging and in suspension; bathymetric evaluations of the reservoir between washings, estimates of the average daily*

*contribution in different periods, and analysis of turbined water quality, all of which gave rise to the bidding specifications, and it is worth noting that these studies are all long-term and far-reaching in scope.*

*It is evident that INECEL, CONELEC and Hidropastaza possessed substantial information related to the hydro sedimentological regime of the Rio Pastaza, without in any way the technical specifications, the concession contract or the construction contract contemplating any type of obligation on the part of the Designated Contractor to update such information, monitor the water quality of the Rio Pastaza or adapt its design to conditions other than those established in the bidding documents and the construction contract. Furthermore, this monitoring should not follow short periods, but depend on a statistical historical analysis of the river's behavior over time, as stated in the bidding phase by the aforementioned parties.*

*In addition to the fact that there is no express contractual obligation in this sense, it is evident that the scope of the services provided by the Construction Consortium did not include a new sedimentology study, since the time required for the detailing of the basic design and construction of the project is not compatible with the time required for the execution of a detailed sedimentological study to validate the one carried out during the basic design stage, especially if it was desired to incorporate a representative sampling campaign of the variability of the quality conditions of the water transported by the river, which by its very nature, in order to establish reliable values, would imply several hydrological years."*

*"Proposal for a desander by the Consortium.*

*Although the Consortium had no contractual obligation to verify what was done in INECEL's Basic Design, in the optimization stage of the project, the Construction Consortium submitted to Hidropastaza a number of alternatives to improve the capacity of the Agoyán reservoir desilting basin, as stated in Letter OEC/ADC/031/2003 dated May 20, 2003, attached to the optimization report, in order to improve its operation and reduce the amount of suspended solids that reach the Agoyán and San Francisco generation units, affecting their operation and performance. None of these alternatives was adopted by the Concessionaire due to the cost of such infrastructure works. The alternatives proposed included:*

*A new, in-tunnel decanter on the left bank, running parallel to the existing reservoir, which would require 5 tunnels on the left bank, and which was discarded due to the physical impossibility of implementing this alternative.*

*Extension of the existing desander with an upstream pre-desander, which was discarded since the available upstream emersion reach of the existing structure did not have the necessary length and width to retain the particulate matter to be retained.*

*Modifications to the existing desander that could not be implemented due to the length of time that the reservoir would be out of service.*

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*Pre-decanter with flap gates.*

*The Consortium's proposal did not receive any comments from the concession holder and the concessionaire, so on January 28, 2004, CONELEC requested Hidropastaza to provide a detailed design of the project, including the modifications derived from the elimination of the Rio Verde catchment, as detailed later in this document. It should be noted, however, that the implementation of any of these modifications would have meant an improvement in the management of the sediments normally transported by the Rio Pastaza as stated in the Bidding Terms and Conditions and the Basic Design by INECEL, benefiting the Apoyán and San Francisco power plants, but in no way could it have avoided the effects of unpredictable and force majeure events such as volcanic activity and rains during the first year of operation of the plant and reflected in the extraordinary state of emergency experienced repeatedly in the Project area during 2006, 2007 and 2008. ".*

*The Construction Consortium includes, in its brief and its Exhibits, evidence of the significant variation in the concentrations of suspended solids in the Rio Pastaza since the conclusion of the construction of the project, as well as reports from the Geophysical Institute of the National Polytechnic School, indicating that:*

*"It is evident that the eruptive activity of greater intensity of the Tungurahua volcano, initiated since 2006, is an event that directly influenced the severe deterioration of water quality, which can be verified by the reports of the Geophysical Institute of the National Polytechnic School, an institution that month after month has been monitoring the behavior of the volcano. The attached reports of the Geophysical Institute from July 2006 to December 2007 highlight the eruptive activity, seismic activity, rains and lahars that altered the water quality conditions and even gave way to the emergency decrees issued for the affected area".*

### **Analysis of the administrators**

#### **Scope of Optimization Studies and Approval Process**

*The Basic Design of the Works on the basis of which the San Francisco Hydroelectric Project was built corresponds to the basic design included in the pre-contractual documents delivered by the former INECEL during the bidding process for the concession and construction of the Project. These are the designs that later became part of the Concession Contract signed between Hidropastaza S.A. and the Ecuadorian State represented by CONELEC.*

*This basic design, which is an integral part of the Concession Contract, was also incorporated into the construction contract signed between Hidropastaza S.A. and the Construction Consortium without any changes or additions.*

*Likewise, the Construction Contract entered into between Hidropastaza S.A. and the Construction Consortium has as its essential purpose the detailing, supply and construction of the basic design provided by the Grantor for the execution of the San Francisco Project.*

*Section 3.1 of the Construction Contract establishes that:*

*"The scope of the Works (hereinafter referred to as the "Works" or the "Works") for the WORKS shall include the Detailed Engineering of the Basic Project, the supply, maintenance, construction and testing, commissioning, and start-up of the WORKS. The Works shall be developed in accordance with, (i) the Basic Project, (ii) the Project Optimization defined in Section 3.2, (iii) the changes or improvements agreed between the Parties under Section 8 of this Contract, if any, (iv) the Specifications included in the Concession Contract and (v) the applicable norms and standards agreed between the Consortium and the Concessionaire".*

*"It is important to highlight that no change, modification and/or optimization under the Construction Contract could be implemented without the approval and authorization of CONELEC and Hidropastaza S.A. in its capacity as Grantor of the Project and representative of the Ecuadorian State in the case of the former, and as the Project Manager and Controller in the case of the latter. Neither are included within the obligations of the Construction Consortium the execution of field studies, verification of basic data, or any other study that may have been required to reconsider the basic design, especially with regard to geological, volcanological, hydrological, sedimentological, etc.".*

*"In this regard, we must mention that the modifications to be made were requested directly by CONELEC to Hidropastaza S.A. through Official Letter DE-04-0112, which textually states the following:"*

*"In clause 10.2.3 of the contract signed by your company with CONELEC, it is stated that, as agreed with the representatives of the communities of Baños de Agua Santa and Río Verde, the Environmental Impact Study will contemplate, among others, the elimination of the Río Verde water catchment from the scope of the Project, thus preserving the waterfall called "Pailón del Diablo".*

*For the reasons mentioned before, please send us the detailed design of the Project, including the modifications derived from the elimination of the Río Verde catchment."*

*"Likewise, we would like to quote the contents of Official Letter No. HP-405- 2004 dated June 10, 2004, through which the Executive Director of Hidropastaza S.A. communicates the following to the representative of the Construction Consortium:*

*"By means of Official Letter number HP-339-2004 dated May 26, 2004, Hidropastaza S.A. submitted to CONELEC the report "Modifications Derived from the Elimination of the Río Verde Catchment", which was delivered to us by the Odebrecht-Alstom-VaTech Construction Consortium. In the aforementioned letter, the Concessionaire requested the immediate approval of the modifications concerning the hydro-electromechanical equipment considered in said report, so that Hidropastaza S.A. could issue the respective manufacturing order for the same.*

*With respect to the above and in accordance with what was indicated in the Official Letter No. DE-04-0903 sent to us by CONELEC on June 9, 2004, a copy of which is attached hereto, Hidropastaza S.A. hereby formalizes to the Construction Consortium the*

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*Manufacturing Order for all the hydro-electromechanical equipment necessary for the San Francisco Power Plant."*

*"Regarding the Project Optimization, Section 6.7 of the Concession Contract states the following:"*

*"6.7 Optimization of the Basic Design: The Concessionaire is authorized to carry out Optimizations to the Basic Design made by INECEL, for which it may increase, modify or eliminate the different parts of the work that make up the Basic Design, prior approval of CONELEC, always maintaining the basic scope of the Power Plant. In the same way, the Concessionaire may introduce improvements or changes to the technical specifications of the initially foreseen malfunctions and equipment".*

*"The meaning and contractual implications of the above are clear and deserve to be highlighted. The basic design and specifications are provided by the Grantor, the optimization of the project was an option of the concessionaire but in this case was requested by the Grantor due to the problems with the communities in the area, has specific purposes and is subject to the prior approval of the Grantor".*

*"Considering that the execution of the San Francisco Project was approved by INECEL's Board of Directors through Resolution 030/94, dated February 24, 1994, and that the construction could only begin one decade later, it is not surprising that the optimization of the project had as its main objective that the Grantor adjust it to the environmental conditions closer to its construction. For the same reason, the optimization did not have the purpose of analyzing the geological, hydrological or sedimentary parameters foreseen in the bidding conditions, since these correspond to detailed and long-term studies carried out by INECEL.*

*It would not be possible to propose optimizations based on punctual information, discarding the available long-term statistical information. Moreover, since the Concessionaire will finance the basic works and those resulting from the optimization, the resulting investment would have financial limitations. Therefore, it cannot be pretended that the optimization represented a carte blanche to redesign the whole project in case of any clearly unforeseeable eventuality, since every improvement has a cost and such cost corresponded to the Concessionaire, which in turn had to be transferred to the price per kw/h, affecting the marginal prices of the National Interconnected System (NIS) within the mechanism in force in the country.*

*The purpose of the optimization was not to carry out a total redesign of the works in order to face any type of force majeure event such as the volcanic activity registered during the first year of operation of the plant, but to make adjustments and constructive adjustments due to the forced exit of the Rio Verde catchment, that at the same time would allow to recover the ten-year delay in the construction of the work and achieve the early start of operation of the San Francisco plant given the emergency situation decreed repeatedly by the Government at the time.*

*In accordance with the provisions of Clauses 3, 4 and 5 of Addendum No. 4 to the paragraph detailing the basic design, procurement and construction, the optimization had as its scope the modifications arising from the outflow of the Rio Verde catchment and additionally some improvements in the construction methodology with new technologies available to date as indicated below.*

1. *Excavation of the headrace tunnel with “Mechanical Mole” (TBM - Tunnel Boring Machine);*
2. *Adoption of precast segmental lining/supporting in the Headrace tunnel.*
3. *Change of location and section of Window 4.*
4. *Change of pressure pipe slope.*
5. *Increase of the section of the Access Tunnel to the Bifurcator to allow the transport of the Pressure Pipe rings.*
6. *Change of the slope of the Upper Surge Tank by increasing the vertical section from 30 to 40 meters.*
7. *Change in the structure of the columns and beams of the Crane Bridge Roadway from reinforced concrete to steel structure.*
8. *Partial replacement of the conventional concrete lining with shotcrete in the Restitution Tunnel.*
9. *Relocation of the Line Exit Gantry, increase of the Cable Tunnel and Shaft and elimination of the Baños-Puyo Road Tunnel.*
10. *Increase in the length of 230 KV insulated cables.*
11. *Increase in the length of the cable shaft elevator.*
12. *Replacement of three overhead cranes with one single crane of greater capacity.*
13. *Elimination of plugs in Windows 1 and 3.*
14. *Increase in the thickness of the pressure pipe.*
15. *Design change in the suction pipe.*
16. *Design change of the bridge Crane.*

*It is evident that these modifications in no way change the basic concept of the Project”.*

**"Approval by CONELEC and Hidropastaza.**

In August 2004, CONELEC and Hidropastaza signed Modification No. 2, which established, among other things, a change in the synchronous speed of the turbines, which increased from 240 rpm to 327.27 rpm, as a consequence of the limitation of the flow of Agoyán, the level of the Interconnection Chamber due to the restriction in the submergence of the Agoyán generating units, the decrease in the flow due to the elimination of the Río Verde Collection agreed between CONELEC and the community, and the consequent decrease in power, among other aspects. This change in the main mechanical structure of the project, which stems from an agreement between the Grantor and the Concessionaire, was in turn transferred to the obligations of the Construction Consortium through Addendum No. 4 to the construction contract. Therefore, the modification of the turbine revolutions was not an arbitrary or unilateral decision of the Construction Consortium but was first agreed upon between the Grantor and the Concessionaire and subsequently and consequently adopted by the Construction Consortium, after the technical characteristics of the equipment to be supplied were reviewed and approved by the Grantor and the Concessionaire.

Regarding the presentation of "the study that evidences the evaluation of the parameters associated to the project and establishes the convenience of changing the speed" constant in the contested note, the obligation to present a specific study in this regard does not exist, since the change in the speed of the turbine was produced as part of the Project Optimization contractually foreseen in Section 6.7 of the Concession Contract and 3.1 of the Construction Contract.

It is therefore incomprehensible that, having included such aspect in the optimization study (as contractually required), having submitted it for the approval of the Concessionaire and the Grantor and having obtained such approval based on the technical support presented, it is now intended to impute to it a fault that it did not commit on a specific matter that did not exist.

By means of Official Letter No. OEC-SF-ADM-046-2004 dated June 14, 2004, the Construction Consortium submitted for Hidropastaza's approval a set of designs that conformed adjustments to the Basic Design resulting from the optimization of the Project and among them was included the change of speed of the turbines. Subsequently, Hidropastaza submitted the Construction Consortium's proposal to an evaluation by external consultants who issued the "Consolidated Design for Acceleration Electromechanical Project Evaluation Report".

Andritz, in response to a request for clarification from Hidropastaza, through the technical study dated July 19, 2004, carried out a detailed analysis of the turbine rotation speed, and considering the sediment levels reported in the Bidding documents and verified at the time, confirmed the adequate selection of the rotational speed of 327.27 rpm. Hidropastaza analyzed the presentation, and subsequently, in the Meeting Minutes of November 22, 2004, it was recorded that the Consortium made a new presentation to Hidropastaza's Technical Authorities, whereby it was recorded and signed that;

*"Hidropastaza accepts these criteria as set forth in the presentation, thus overcoming all the concerns that had been raised to date by the mechanical area. Therefore, the rotational speed of 327.27 rpm is considered approved."*

*"It should also be mentioned that, as stated in Paragraph 5, Section D) Credits in favor of Hidropastaza, of Exhibit 3 of Exhibit 1 of Addendum 4, a credit was established for variations in the hydro-electromechanical equipment resulting from the smaller dimensions and weights of the same, which were established at US\$ 3,181,674.*

*On September 21, 2004, Hidropastaza formally delivered to the Consortium a certified copy of Addendum No. 4 and the respective Exhibits to the EPC Contract.*

*On the other hand, with respect to the knowledge and approval by CONELEC regarding the modifications to the Basic Agreement, the "Second Modification to the Concession Contract for the Construction, Operation and Maintenance of the Hydroelectric Power Plant called San Francisco Hydroelectric Project entered into between the Electricity Council (CONELEC) and the Hidropastaza Company" contains a detailed list of the Internal approvals that resulted in the execution of said contract,*

*Through Memorandum No. DE-04-0903 dated June 7, 2004, the Executive Director of CONELEC informs Hidropastaza that after an analysis carried out by the concession holder, it has been determined that the modifications to the Basic Design are indeed a logical consequence of the elimination of the Rio Verde catchment (agreed between CONELEC and the communities adjacent to the Project according to section 10.2.3 of the concession agreement), and of the slight reduction in the drop due to the effect of the submergence of the Agoyán units. Therefore, the modifications to the basic design were approved by CONELEC and incorporated to the Second Modification to the Concession Contract signed between Hidropastaza S.A. and CONELEC on August 19, 2004.*

*In the long run, turbine speed is part of a set of basic design details among which the selection of the turbine rotational speed cannot be considered in isolation. There are no strict limits for the selection of the rotational speed of turbines that will operate with waters containing suspended solids, but criteria supported essentially by operational results. The rotational speed proposed by the Consortium and approved by Hidropastaza is in line with updated criteria supported by its own experience.... All this was valid considering the amount of Suspended Solids included in the bidding documents.*

*As a result of the aforementioned, it is incorrect to state that the necessary information that evidences the evaluation of the parameters associated to the project and establishes the convenience of the change in the speed of the turbines was not available, since the changes in the design of the turbines were made known to the Concessionaire and the grantor on countless occasions and approved by them, generating economic benefits for the Concessionaire.*

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**Turbine design according to technical specifications**

*Let us analyze for a moment the content of the contractual clauses invoked by the CGE to configure the alleged noncompliance of the Construction Consortium and charge the corresponding Notice of Administrative Penalty:*

**Clause 3.2 of the Detailed Engineering, Procurement and Construction (EPC) Contract**

*"3.2 Immediately after the signing of this Contract, the Consortium will develop a technical study ("Optimization Study") to study the possibility of optimizing the Basic Project object of the Bidding carried out by INECEL. Based on the conclusions of the Optimization Study, the price of the Answer set forth in Paragraph 5 and Exhibit 2 to this Contract, the Consortium shall revise the prices and terms of the WORKS affected by the Optimization to be implemented".*

*As was shown in Section IV.A.1 of this document, the Construction Consortium has developed the technical studies that led to the optimization of the project and based on which the prices and terms of the others affected by the optimization to be implemented were revised, so that the Construction Consortium fully complies with the provisions of Section 3.2 of the Detailed Engineering, Procurement and Construction Contract (EPC).*

**Section 2.2.1 of the mechanical specifications of the second amendment contract to the concession contract**

*"The machines must be of robust construction and each of their parts must be designed taking into account the limitations imposed by sediments in the water to be turbined, safety in operation and ease of assembly and maintenance. Turbines must perform under all operating conditions within the specified values as well as vibration, temperature, cavitation and wear."*

*As demonstrated to date in Section III of this document, the operating conditions during the first year of operation of the Plant were subject to unforeseeable events of force majeure and exceeded the specified values and any possible forecasts made by the Construction Consortium when it developed the technical studies that led to the optimization of the project and based on which the prices and deadlines of the works affected by the optimization to be implemented were revised.*

*Thus, the Basic Design detailing provided by the Grantor is based on the range of minimum and maximum conditions of solids content in the water, which were taken into consideration by the Construction Consortium, who, aware of its obligations and the demand to which the equipment to be supplied would be subjected, not only designed the turbines in accordance with the specifications, but also took into account the effects of Suspended Solids in the water on the operation and maintenance of the turbine, designing especially the impeller, minimizing the relative velocities*

*with respect to the hydraulic profile of the blades, obtaining high efficiency and zero cavitation conditions, and designing the turbine assembly in such a way that the breakage removal times, when necessary, were minimized...*

Section 2.5.1, "Cavitation Guarantee".

*"The impellers, plates and wear rings and suction pipe inlet shall be warranted against excessive pitting due to cavitation. Measurement shall be performed after 8,000 hours of actual operation or for a period not to exceed two calendar years.*

*If excessive cavitation should occur, the appropriate measures will be taken to prevent the occurrence of cavitation.*

*The upper limits of cavitation wear are as follows:*

- Pitting at a depth of 4 mm in any area*
- Damaged area of 6,000 cm<sup>2</sup> with more than 1 mm average depth".*

The Special Engineering Examination Report on the Construction of the DIAPA-0039-2008 Project, dated November 27, 2008, on pages 61 to 63, refers to the "Report on the inspection of the Francis Unit No. 2 of the San Francisco Plant in Ecuador" carried out by the company Turbo Dynamics Corporation, on May 9, 2008, in which it states:

*"4. I have pointed out quo there is no evidence of cavitation. The damage is due to erosion..."*

**Wear and deterioration of the Unit 2 Impeller due to sedimentation**

*'...the suspended solids tests of the Rio Pastaza waters carried out during the construction of the project corroborated the design data established in the Technical Specifications and consequently, the turbines were manufactured in accordance with those requirements. However, it is evident that when the San Francisco plant started operating, the high values of sediments resulting from the increased volcanic activity in 2006 and the dragging of these produced after several eruptions during the winter season of 2007, caused the suspended solids to be significantly higher than the predicted values on the basis of which the basic design, supplies and construction of the plant, a situation that corresponds to an unforeseeable event of force majeure.*

*The Agoyán reservoir's washing operations require the shutdown of the units of the San Francisco power plant. During the washing process, the suspended solids present in the pressure piping, which exceeded any design or construction precautions, are deposited at the bottom of the piping, so that when the washing process is resumed and the generation units are restarted, the water with which they start up has a very high concentration of solids. Repeating this operation after each of the numerous shutdowns that have been carried out*

*during the first year of operation of the Plant has undoubtedly affected the wear and abrasion of the blades of Unit 2, which have been affected due to an unforeseeable event and force majeure such as the volcanic activity during the first year of operation of the Plant and reflected in the extraordinary state of emergency repeatedly experienced in the Project area during the years 2006, 2007 and 2008.*

*The detachment of the hard protective coating of the blades is due to abrasion caused by suspended solids of exceptional and unpredictable magnitude for the Construction Consortium at the time of the model and design study.*

*In the same way, the Report of the Engineer's Special Examination of the Construction of the DIAPA-0039-2008 Project dated November 27, 2008, in its pages 39 and 40, refers to the report FURNAS.001.2008-R0 by means of which the legal representative of the FURNAS - INTEGRAL association, contractor of the construction supervision of the San Francisco hydroelectric project, reported on the inspection carried out on July 9, 2008 on the state of the headrace tunnel, as of July 9, 2008. In this regard, the CGE cites the following:*

*"For its conclusions, it points out that the stoppage of the San Francisco power plant is due to the significant modification of the water quality of the Rio Pastaza, since the high amount of sediments could jeopardize the functioning of the rock traps; that it is urgent to consider the construction of a new sand trap in Agoyán or improve the existing one; that the rock displacements that occurred in the headrace tunnel are normal and have nothing to do with the stoppage of the power plant; and that it is urgent that Va Tech change the emptying and drainage systems, as recommended by the auditors in the project's commissioning stage."*

*The comments made by the Auditor in its Inspection Report on the headrace tunnel coincide with our belief that the stoppage of the San Francisco Power Plant is due to unforeseeable events of force majeure concomitant with the extraordinary emergency experienced repeatedly in the Project area during 2006, 2007 and 2008, which caused the severe modification of the water quality of the Rio Pastaza.*

#### **Volcanic eruption, sediments and operating conditions**

*Regarding the alleged non-compliance with the design conditions of the turbines, such conditions were first provided by the Grantor and were related to statistical information on water quality, which in turn were part of the concession contract documents and, therefore, of the construction contract.*

*Upon completion of the testing of the San Francisco Units, commercial operation by Hidropastaza began. However, contrary to all the rules and the usual industry practice and operating standards, the turbines were used during the first months even with the presence of sediment levels well above the admissible levels.*

*The operation of San Francisco Plant by Hidropastaza during periods of heavy rainfall when there are millions of tons of volcanic material in the upper reaches of the Rio Chambo, the main tributary of the Rio Pastaza, cannot be described as anything other than reckless, since the normal practice in the industry is to monitor the sediment content in the turbined water in order to shut down the units when there are high concentrations of sediment that could cause damage to the equipment, as warned in the Concession Contract itself.*

*It should also be noted that Hidropastaza's decision to operate the San Francisco Plant was taken despite knowing the inefficient capacity of the Agoyán sand trap to retain particles and sediments, since, as mentioned above, several alternatives were proposed in the optimization phase, selecting the one considered most convenient and developing its design at the preliminary project level. The recommendations made by the Consortium were not implemented by Hidropastaza and, consequently, no additional works were carried out, thus maintaining the inefficient operation of the sand trap. Hidropastaza was fully aware of the limitation of Agoyán sand trap, and however, continued operating the turbines outside of the Manufacturer's recommended operative ranges, as evidenced by the operating records, which show that 62.23% of the period from June 2007 to May 2008 the plant operated outside the ranges covered by the operating warranty, so any claim regarding the failure or condition of the turbines lacks any support.*

*In addition to the above, it should be considered that point 3.2.3 of Exhibit 4 - Operation and Maintenance Parameters of the Concession Contract signed between CONELEC and Hidropastaza, where it is expressly stated that:*

*"Due to the fact that during the flooding of the Rio Pastaza, the Agoyán reservoir increases its de-sanding capacity, in order to prevent the deterioration of the turbines, the operation of the Agoyán and San Francisco power plants may be suspended in a controlled manner, for which purpose the stipulations of this Contract will be taken into account".*

*Even though the suspension of the San Francisco operation was contractually foreseen, Hidropastaza continued generating during the Rio Pastaza floods that occurred during the extraordinary winters of 2007, in addition to the dragging of hard sediments from the Tungurahua volcano.*

*This even goes against Andritz's Turbine Operation and Maintenance Manual (Doc SFR-OM5VAT-CMTU-006 of 18-7-07), which clearly expresses the measures to be adopted when the operating conditions are different from those foreseen in the Specifications:*

*"3 The equipment supplied by Va Tech Hydro Brasil Ltda. was designed and adjusted in relation to the specific criteria and operating conditions for the San Francisco Hydroelectric Project.*

*Va Tech Hydro Brasil Ltda. cannot be held responsible for an operation of the Turbine that is not in accordance with the contractual conditions".*

*"6.1 General. The operating conditions of the equipment must respect the contractual limits established between the customer and Va Tech Hydro Brasil Ltda."*

*"6.3.1. Failure to comply with the contractual operating limits will result in the risk of premature wear of the turbine's hydraulic surfaces, such as flanges, fixed pre-distributor blades, guide vanes, impeller, and suction pipe. The warranty for runner cavitation wear is limited to the turbine's operating limit".*

*"6.3.3 The maximum power of 117.081 MW with one unit in operation and minimum power of 50 MW with one or two units in operation shall be respected as indicated in the table attached to item 1. Failure to observe the operating limit will result in the risk of premature wear of the turbine's hydraulic surfaces and cavitation wear on the runner not guaranteed by Va Tech Hydro Brasil Ltda."*

*"6.3.5 Wear of the hydro surfaces by abrasion due to solid films in suspension in the water or corrosion caused by some chemical compound or electrogalvanic are not included in the warranties of Va Tech Hydro Brasil Ltda. In the event of a failure, it will be necessary to repair immediately before further damage occurs."*

*"7 The minimum list of inspections and maintenances that the customer shall perform is presented in items 7.3, 7.4 and 7.d of this manual. The execution with a lower periodicity can be adopted by the customer, a higher periodicity cannot be accepted.*

*A record of all maintenance operations shall be kept available at the plant for consultation of the equipment's history. Va Tech Hydro Brasil Ltda. shall always be informed about the need for evaluation of any issues during the warranty period and, if necessary, shall send a representative for technical assistance in the field.*

The administrators point out:

*"...It is clearly evident that the Construction Consortium is not responsible for damages when the conditions established in the Operating Manual and technical specifications are not complied with, especially the one referring to the need to damage or operate the units under extraordinary conditions of supply or above the limits established by the manufacturer.*

*The analysis carried out and the aforementioned waives of any additional comments that may be made regarding the events of an unpredictable nature and force majeure that caused damage to the Plant, the fact that such conditions far exceeded the requirements established in the bidding process on the basis of which the supply was contracted and carried out, and the fulfillment of the Consortium's obligations.*

*The Construction Consortium not only fully complied with its obligation to supply the required equipment under the established operating conditions*

by the Ecuadorian Government in the bidding documents and Technical Specifications of the Contract, but rather confirmed, to the extent and as far as possible, that these conditions (i.e., water quality) were maintained within the ranges required and foreseen in the documents provided by the grantor.

It is unacceptable that the Notice of Administrative Penalty established by the CGE are based on the fact that the Construction Consortium could not establish a priori the concentration range of solids that would be present once the plant was in operation and in the event of a force majeure event, even more so considering that the water quality evaluations carried out by the Construction Consortium during the construction of the works were consistent with those foreseen in the studies and documents provided by the Grantor.

On the other hand, the GGE has not considered at all the manner in which Hidropastaza has operated the equipment supplied by the Construction Consortium, nor has it evaluated whether the operations have been subject to the requirements established in the technical guarantees of the equipment and whether, as a result of such operations, the claims made are covered by the technical guarantee and, therefore, whether or not they have a contractual basis. As shown, the technical warranty has been voided due to the improper operation of the turbines by Hidropastaza".

	Date	Letter
b) 5886 <b>Edgar Rodrigo Castro Hitchcock</b>	07/24/2009	027311
5887 <b>Descartes Higinio León Pérez</b>	07/24/2009	027311
5888 <b>Néstor Valdospino Cisneros</b>	07/24/2009	027311
5889 <b>Pablo Mauricio Cisneros Gárate</b>	07/24/2009	027311
5890 <b>Pablo Anibal Viteri Estévez</b>	07/28/2009	028321
5891 <b>Sadinoel de Freitas Junio</b>	09/22/2009	24547
5892 <b>Bolívar Javier Astudillo Farah</b>	08/11/2009	035471
5893 <b>Germán Bolívar Anda Naranjo</b>	07/28/2009	027077

In this regard, the legal representative of Hidropastaza, with Official Letter 0436-HEPT-2010 dated July 9, 2010, textually states that the: Repair of flaws so that the work reaches its condition and performance required in the Contract and in the Technical Specifications, as follows:

[Illegible numeric stamp]

*"Impellers.*

*The problem of premature wear of the Unit 2 turbine impeller was initially identified during the general preventive maintenance program for the year 2007. During the scheduled six-monthly maintenance shutdown on November 11, 2007, the presence of an apparently superficial crack in blade No. 10 of the Unit 2 turbine runner was detected, and it was determined that this element did not require urgent repair, so the units returned to operation.*

*In March 2008, the Consortium proceeded at its own cost and expense to the recovery by controlled welding of the crack in blade No. 10 of the turbine impeller in Unit 2, which returned to operation that same day, after which a visual inspection was carried out three days later with no evidence of any cracks.*

*Considering the events and after various analyses, it can be concluded that the turbine impellers have suffered premature wear that may be largely due to the fact that the concentrations of solids in the turbined have been found to be well above the values foreseen in the technical specifications. On the other hand, following the recommendation of the State Comptroller General's Office, the Transactional Agreement contemplates.*

- *The supply of 2 (two) new impellers for the turbines of the Power Plant, which will be installed within 2 (two) years, starting from the date of the beginning of the Complementary Works.*
- *The supervision of the installation of the said impellers. The full assignment of the manufacturers' warranties of the impellers. This warranty will be valid for 24 (twenty-four) months from the reception of the equipment by Hidropastaza".*

iv. *After analyzing both the report of the special engineering examination and the background memorandum registered in the file under number 0029-2000, as well as the communications and evidence submitted, it is concluded that:*

*The basic design of the works on the basis of which the San Francisco Hydroelectric Project was built corresponds to that set forth in the pre-contractual documents delivered by the former INECEL, first, during the bidding process for the concession of the project between CONELEC and HIDROPASTAZA and then, for the construction of the project between HIDROPASTAZA and the Norberto Odebrecht-Alstom-Va Tech Construction Consortium.*

*The aforementioned basic design, which is an integral part of the concession contract signed by CONELEC on behalf of the Ecuadorian State, was also incorporated into the construction contract signed between HIDROPASTAZA S.A. and the Norberto Odebrecht-Alstom-Va Tech Construction Consortium, without any changes or additions, since it could not be modified without the express knowledge and authorization of the Grantor, as provided in the Electricity Sector Regime Law.*

*The purpose of the construction contract is the detailing, supply and construction of the basic design delivered by the Grantor for the execution of the San Francisco Project.*

Section 3.1 of the Construction Contract establishes:

*"The scope of works for the Works shall include the Detail Engineering of the Basic Project, the supply, assembly, construction and testing, commissioning and start-up of the works. The Works shall be developed in accordance with: (i) the Basic Project, (ii) the Project Optimization defined in Section 3.2, (iii) the changes or improvements agreed between the Parties pursuant to Section 8 of this Contract, if any, (iv) the Specifications included in the Concession Contract and (v) the Ecuadorian or other applicable norms and standards agreed between the Consortium and the Concessionaire".*

It is evident from the aforementioned clause that the Construction Consortium had the obligation, among others, to carry out the engineering of the basic design development, and the optimization of the project defined in section 3.2; which does not include the execution of hydrology, sedimentology, volcanology or geotechnical studies, which in due time were executed by INECEL, confirmed by CONELEC and which served as a basis for the conception of the San Francisco Project. These basic studies have a considerable period of time and involve monitoring the behavior of the Rio Pastaza basin, by the sediment content of the respective sub-basins and micro-basins that deposit, contaminate and drag the waters towards the Rio Pastaza. These waters are the source for the operation of the Agoyán and San Francisco hydroelectric power plants, as well as the behavior of the Tungurahua volcano, linked to volcanic events and earthquakes; statistical information that is the basis for the design of the San Francisco project.

CONELEC decided to eliminate the Rio Verde water catchment from the scope of the project, thus preserving the waterfall known as "Pailón del Diablo", which was requested by the communities of Baños de Agua Santa and Rio Verde and environmental aspects, so they asked the construction consortium for a detailed design of the project, including the modifications derived from the elimination of the Rio Verde catchment and the postponement of the construction of the Agoyán - San Francisco by-pass to the year 2012.

The Grantor (CONELEC) by means of Official Letter No. DE-04-0112, requested directly to the Concessionaire (HIDROPASTAZA) the presentation for the approval of the modifications to be made, concerning the hydro-electromechanical equipment considered in the report submitted by the Odebrecht-Alstom-Va Tech Construction Consortium, so that HIDROPASTAZA S.A. may issue the respective manufacturing order for the same.

HIDROPASTAZA formalized the manufacturing order to the Construction Consortium for all the hydro-electromechanical equipment required for the San Francisco Power Plant, once CONELEC's approval was obtained, through Official Letter HP-405-2004 June 10, 2004 (Exhibit 28), and signed on August 19, 2004 (Exhibit 32) the Second Modification to the Concession Contract, including changes.

The scope of the optimization of the project includes the modifications arising from the exit of the Rio Verde catchment and some changes in the construction methodology, such as: the use of the mechanical mole (TBM - Tunnel), the use of a tunneling system (TBM - Tunnel)

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Boring Machina) for the excavation of the headrace tunnel; adoption of linings/support with prefabricated dowels in the headrace tunnel; change of location and section of window 4; change of slope of the pressure pipe; increase of the section of the access tunnel to the bifurcator to allow the transport of the pressure pipe rings; change of slope of the upper surge tank increasing the vertical section from 30 to 40 meters; increase of the thickness of the shielding in the pressure pipe. These modifications have not changed the basic concept of the Project.

According to the statements presented by the Construction Consortium, the problems in the civil works of the hydraulic circuit of the power plant and in the hydro-mechanical elements of the San Francisco project have been generated by the excessive increase of sediments received and carried by the Rio Pastaza as a consequence of the eruptions of the Tungurahua Volcano and winter periods of great magnitude, considered events of force majeure or fortuitous event, evidenced in the respective emergency executive decrees, which are shown in pages 21452 to 21457, with extremely higher sedimentation cycles than those constant in the statistical information of long term periods carried out by INECEL, which were the basis of the basic challenges.

Also, according to the evidence contained in the releases provided and analyzed after the storm in relation to the approval processes of the works, equipment and systems, the problem in the Cooling Water System and in the turbine runner blade was due to extreme operating conditions, related to the extraordinary emergencies experienced repeatedly in the Project area during 2006, 2007 and 2008.

Likewise, it should be noted that the affected impellers were repaired by the Norberto Odebrecht-Alstom-Va Tech Construction Consortium and are currently in operation, without prejudice to the commitment assumed by the Construction Consortium in the agreement signed with Hidropastaza on July 8, 2010, in which, among other aspects, it is provided that the Consortium will supply 2 new runners for the turbines of the plant; as well as to grant a guarantee for the civil works and the provision and execution of the works of the Cooling Water System, solving the facts that gave rise to the establishment of the note.

Based on the above-mentioned Agreement, Hidropastaza sends attached to Letter 526-HPEP- 2010, the certified copy of the purchase order for the supply of the two new blades specified in clause 1.2.2. (i) of the Agreement, and the certification of the first payment for EUR 350,000 to the company ANDRITZ HYDRO, as payment for the purchase of the two impellers whose cost amounts to USD 7,000,000; amount subject of the Administrative Penalty.

The Comptroller General of the State, in due course, will verify compliance with the obligations assumed by the parties to the agreement entered on July 8, 2010, with a new control action.

For the foregoing; and,

In exercise of the powers conferred by the law,

**AFFIDAVIT**

I, **Juan F. Albán-Naranjo**, under penalties of perjury, declare:

1. My name is **Juan F. Albán-Naranjo**, I am over the age of eighteen (18) years, and I am competent to make this affidavit. The statements contained herein are true and correct.
2. I am certified as a Spanish->English interpreter by the state court systems in Florida and California.
3. I am an experienced bilingual translator who is fluent in both the English and Spanish languages.
4. Pursuant to Florida Statute § 90.606, I translated the item below from Spanish to English to the best of my knowledge, ability and belief and the translations are in fact true and accurate.

See Exhibit "A" attached hereto

5. I have no affinity or consanguinity with the participants of the translated document.

Pursuant to Florida Statute § 92.525(2), under penalties of perjury, I declare that I have read the foregoing Affidavit and that the facts stated in it are true.

*Juan F. Albán-Naranjo*

\_\_\_\_\_  
Juan F. Albán-Naranjo

April 1, 2024

DATE

STATE OF Texas

COUNTY OF Collin

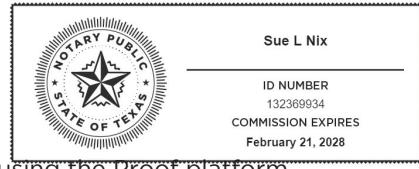
Sworn to (or affirmed) and subscribed before me on April 1, 2024, by Juan F. Albán-Naranjo.

*Sue L Nix*

\_\_\_\_\_  
NOTARY PUBLIC, or other person authorized  
to administer an oath

Sue L Nix

\_\_\_\_\_  
Printed, typed or stamped commissioned name  
of Notary Public



Personally known

Produced identification Electronically signed and notarized online using the Proof platform.

Type of identification produced: Florida Driver's License A-415-426-70-0570

Exhibit "A"

1-1, Resolution No. 2446, August 26, 2010  
1-2, Resolution No. 2448, August 27, 2010  
1-3, Resolution No. 2449, September 1, 2010  
1-4, Resolution No. 2450, September 1, 2010  
1-6, Resolution No. 2452, September 1, 2010  
1-7, Resolution No. 2453, September 1, 2010  
1-8, Resolution No. 2454, September 1, 2010